

## PEER REVIEW HISTORY

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### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Digital Technology and Disease Surveillance in the COVID-19 Pandemic: A Scoping Review Protocol
<b>AUTHORS</b>	Donelle, Lorie; Hall, Jodi; Hiebert, Brad; Shelley, Jacob J.; Smith, Maxwell; Gilliland, Jason; Stranges, Saverio; Kothari, Anita; Burkell, Jacquelyn; Cooke, Tommy; Long, Jed; Shelley, James M.; Befus, Deanna; Comer, Leigha; Ngole, Marionette; Stanley, Meagan

### VERSION 1 – REVIEW

<b>REVIEWER</b>	GL Gilbert University of Sydney, Sydney Health Ethics
<b>REVIEW RETURNED</b>	16-Jul-2021

<b>GENERAL COMMENTS</b>	<p>Abstract.</p> <p>This is a clear outline of the proposed study. However, the proposed scope is limited (covering 12 months' publications and related only to COVID-19, albeit with a global reach). This may be pragmatic, but it will exclude potentially useful insights from previous experience of communicable disease digital surveillance more generally, which would provide a better understanding of the unique aspects of COVID-19 surveillance.</p> <p>Strengths and limitations.</p> <p>The authors acknowledge the limited scope, but do not explain or justify it. Do they anticipate an excessive number of publications that would make extending the timeframe unmanageable (the scope could be limited by criteria other than date)? Or do they believe the literature relating to digital surveillance more generally – such as discussions/reviews of ethical and legal implications and data security and safety - not relevant to COVID-19?</p> <p>Introduction.</p> <p>Notwithstanding these reservations, the Introduction provides a useful overview of the issues, although the papers cited are mainly limited to 2020 and specifically relevant to COVID-19.</p> <p>Methods and Analysis.</p> <p>Research questions are clear and seem appropriate. On the other hand, earlier publications could contribute to the sub-question (2) - particularly in relation to long-term implications of digital surveillance, which may be difficult to discern in the context of short-term considerations at the height of the pandemic.</p> <p>Search strategy appears appropriate and comprehensive.</p> <p>Literature selection.</p> <p>This is confusing. I initially assumed 'January 2000' (p8, line42) was a typographical error. However, the authors indicate that &gt;9000</p>
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	<p>articles were retrieved, which seems more plausible for a 21-year than a one-year period (and may be the answer to my question, above, about why the review is limited to one year). If it is not an error, it is not clear why the authors started with this broader time frame only to exclude the first 20 years and reduce the timeframe to 13 months – which is apparently what was originally intended.</p> <p>Sections relating to charting the data and collating, summarizing also seem appropriate.</p> <p>Conclusion: If published, this will be a useful and important review, which I look forward to reading. However, the protocol would benefit from a more detailed explanation/justification of the scope – particularly in relation to how the authors hope to understand long-term implications of digital surveillance by reviewing only one years' literature. In addition, the literature inclusion/exclusion criteria need to be clarified.</p>
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<b>REVIEWER</b>	Kathirvel Soundappan Post Graduate Institute of Medical Education and Research, Community Medicine
<b>REVIEW RETURNED</b>	01-Aug-2021

<b>GENERAL COMMENTS</b>	<p>Dear Authors,</p> <p>I have read the manuscript with interest. However, I have found the following issues.</p> <ol style="list-style-type: none"> <li>1. Scoping reviews are usually conducted in place of systematic review since the former addresses the broad research question and the latter is resource-intensive and addresses the focussed research question. However, the submitted manuscript will not be of interest to many readers since it is just a protocol. Definitely, I am ready and available to review the manuscript with the results.</li> <li>2. Search method/database is limited to published and poorly defined grey literature. The author needs to add the android, google and iOS play stores since a number of countries developed their own applications for digital surveillance of COVID-19 which is currently not included in the manuscript.</li> <li>3. Though the research question or aim is focussed on COVID-19, the inclusion of literature since 2000 and other diseases warrants the revision of the research question.</li> <li>4. Further, non-inclusion of digital surveillance tools used for prevention and control of the outbreak/epidemic of other communicable diseases may result in systematic missing of evidence.</li> </ol> <p>I request the authors to complete the review and submit with results. Thank you for the opportunity.</p>
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### VERSION 1 – AUTHOR RESPONSE

Reviewer #1

Limited scope of search, lack of clarity in our literature selection strategy

Response: We thank the reviewer for their comments on the literature selection strategy. We welcome the opportunity to provide clarity on the process through which we arrived at the number of articles included, and how we selected the literature. We agree with the comments on the “strengths and limitations” section and the abstract on the lack of a justification for our limited scope.

We limited the scope of our review for several reasons. One of the most important of these was pragmatic. While we initially began the literature search with a timeframe of 2000 to 2020 inclusive, this search yielded over 9000 results, and after screening we were still left with 888 results. For pragmatic purposes, we decided to limit the scope of this review to the COVID-19 pandemic, and therefore we narrowed our timeframe to December 2019 to December 2020 inclusive. We agree with the reviewer about the importance of previous publications. However, after trying to limit the scope in other ways—including by type of technology, region, methodology, and so on—we found that limiting the scope to the COVID-19 pandemic was the most efficacious way of yielding a reasonable number of included articles while still answering our research questions. In addition, we limited our scope to COVID-19 on the basis of the funding we received, which was specifically targeted towards COVID-19. We have revised our section on the methods and analysis to justify our decision to limit the scope of the review, and to clarify that process.

Justification of scope within the abstract and the section “strengths and weaknesses”

Response: We have revised the “strengths and weaknesses” section with an explanation and justification for our decision to limit the scope of our review. Following these revisions, we found that the abstract accurately conveys our search process and therefore did not require modification.

Reviewer #2

Value of the protocol as opposed to the full manuscript

Response: We thank the reviewer for their perspective on the publication of a protocol as opposed to a manuscript with full findings. After reflecting on the reviewer’s comments, we have found that protocols have value in that they can be helpful and supportive to other researchers looking to conduct similar work or seeking to understand ways of conducting research. Protocols are also useful for student learning. In addition, protocols provide clarity and transparency around the research process beyond what can be provided in a final manuscript. For these reasons, we feel that there is value in publishing the protocol in addition to the full manuscript.

Limited search method, poorly defined grey literature

Response: We thank the reviewer for their comments on the search method. We have revised the “methods and analysis” section to clarify how we defined the grey literature and our search strategy in searching the grey literature. As with the comments provided by reviewer #1, we have also made changes to the “methods and analysis” section to clarify our process of literature selection.

Inclusion of Android, Google, and iOS play stores, inclusion of digital surveillance tools

Response: We thank the reviewer for their comments on the inclusion of apps published in app stores. At this time, in this scoping review we are only focusing on secondary sources, and as a result will not be conducting our own empirical research on available digital smartphone applications.

Revision of the research question given the limited scope

Response: We agree with the reviewer’s comments on the disconnect between the research question and the scope of the review. Our changes to the “methods and analysis” section clarify the scope of the review and explain that our scope is limited to the COVID-19 pandemic.

## VERSION 2 – REVIEW

<b>REVIEWER</b>	GL Gilbert University of Sydney, Sydney Health Ethics
<b>REVIEW RETURNED</b>	12-Sep-2021
<b>GENERAL COMMENTS</b>	The authors have addressed my concerns